* *

What is claimed is:

5   1.   A method for mapping a texture image, which is stored in a memory of a computer system, to a graphical object, which is stored in the memory, the method comprising:

determining whole and fractional portions of one or more texture coordinates of a pixel of the graphical object in an address space of the texture image;

selecting from the texture image two or more texels which correspond to a first of

10   the texture coordinates of the pixel and each of which has a color;

selecting a pair of complementary coefficients from a table, stored in the memory, of predetermined complementary coefficients according to the fractional portion of the first texture coordinate of the pixel; and

calculating a weighted average of the color of a first of the texels and the color of

15   a second of the texels according to the pair of complementary coefficients to produce an interpolated texel color.

2.   The method of Claim 1 wherein the step of calculating comprises:

(a)   weighting the color of the first texel with a first coefficient of the pair of

20   complementary coefficients to produce a first weighted color;

(b)   weighting the color of the second texel with a second coefficient of the pair of complementary coefficients to produce a second weighted color; and

(c)   summing the first and second weighted colors to produce the interpolated texel color.

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3.   The method of Claim 2 further comprising loading, in a single load operation, the pair of complementary coefficients into a processor in which steps (a) and (b) are performed.

4.   The method of Claim 2 wherein each color includes two or more partitioned components;

further wherein step (a) comprises multiplying each partitioned component of the color of the first texel with the first coefficient substantially simultaneously in a first partitioned multiplication operation; and

further wherein step (b) comprises multiplying each partitioned component of the color of the second texel with the second coefficient substantially simultaneously in a second partitioned multiplication operation.

5.   The method of Claim 2 wherein each color includes two or more partitioned components;

further wherein step (c) comprises adding each partitioned component of the color of the first texel to a respective partitioned component of the color of the second texel.

6.   The method of Claim 1 further comprising:

calculating a weighted average of the color of a third of the texels and the color of a fourth of the texels according to the pair of complementary coefficients; and

combining the weighted average of the colors of the third and fourth texels with the weighted average of the colors of the first and second texels to produce the interpolated texel color.

7.   The method of Claim 6 further comprising:

loading the pair of complementary coefficients into a processor in which the step of calculating a weighted average color of the third and fourth texels and the step of calculating a weighted average color of the first and second texels; and

preserving the state of the pair of complementary coefficients in the processor such that data representing the pair of complementary coefficients within the processor remain unchanged throughout performance of the step of calculating a weighted average color of

the first and second texels and the step of calculating a weighted average color of the third and fourth texels.

8.   The method of Claim 6 wherein the step of calculating comprises:

5

(a)   weighting the color of the third texel with the first coefficient to produce a third weighted color;

(b)   weighting the color of the fourth texel with the second coefficient to produce a fourth weighted color; and

(c)   summing the third and fourth weighted colors to produce the second

10   weighted average color.

9.   The method of Claim 8 further comprising loading, in a single load operation, the pair of complementary coefficients into a processor in which steps (a) and (b) are performed.

10.   The method of Claim 6 further comprising:

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selecting a second pair of complementary coefficients from a second table of predetermined complementary coefficients according to the fractional portion of a second of the coordinates of the pixel; and

calculating a weighted average of the first and second weighted average colors

20   according to the second pair of complementary coefficients to produce a composite weighted average color.

11.   The method of Claim 10 wherein the first-mentioned pair of complementary coefficients is the same as the second pair of complementary coefficients.

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12.   The method of Claim 10 wherein the first-mentioned table of predetermined complementary coefficients and the second table of predetermined complementary coefficients are the same.

13.   The method of Claim 10 wherein the step of calculating comprises:

(a)   weighting the first weighted average color with a first coefficient of the second pair of complementary coefficients to produce a first weighted color;

(b)   weighting the second weighted average color with a second coefficient of the second pair of complementary coefficients to produce a second weighted color; and

(c)   summing the first and second weighted colors to produce the composite weighted average color.

14.   The method of Claim 1 further comprising:

forming each pair of complementary coefficients of the table such that the sum of the complementary coefficients of each pair of complementary coefficients of the table is equal to each other sum of the complementary coefficients of each other pair of the table and is a selected number.

15.   The method of Claim 14 further comprising:

selecting the selected number such that each weighted average color calculated according to any of the pairs of complementary coefficients is scaled to be within a full range of possible colors.

16.   A method for mapping a texture image, which includes two or more texture sub-images corresponding to a particular respective degrees of minification of the texture image, to a graphical object, the method comprising:

determining whole and fractional portions of a degree of minification corresponding to a pixel of the graphical object;

selecting from the texture image first and second texture sub-images which correspond to the degree of minification of the pixel;

providing from each of the first and second texture sub-images a respective texel, each of which has a color and each of which corresponds to the pixel;

selecting a pair of complementary coefficients from a table of predetermined

complementary coefficients according to the fractional portion of the degree of

minification of the pixel; and

calculating a weighted average of the color of the texel provided from the first

5   texture sub-image and the color of the texel provided from the second texture sub-image

according to the pair of complementary coefficients to produce an interpolated texel color.

17.   A texture mapper comprising:

a texture coordinate parser configured to determine whole and fractional portions

10   of one or more texture coordinates of a pixel of the graphical object in an address space of

the texture image;

a table of predetermined complementary coefficients;

a table item retrieval module which is operatively coupled to the texture coordinate

parser and to the table of predetermined complementary coefficients and which is

15   configured to retrieve a pair of complementary coefficients from the table of

predetermined complementary coefficients according to the fractional portion of the first

texture coordinate of the pixel; and

an interpolated texel generator which is operatively coupled to the table item

retrieval module and which is configured to calculate a weighted average of the color of a

20   first of two or more texels of the texture image which correspond to the texture

coordinates of the pixel and each of which has a color and the color of a second of the

texels according to the pair of complementary coefficients to produce an interpolated texel

color.

25   18.   The texture mapper of Claim 17 wherein the interpolated texel generator

comprises:

(a)   a first weighting module which is configured to weight the color of the first

texel with a first coefficient of the pair of complementary coefficients to produce a first

weighted color;

(b)   a second weighting module which is configured to weight the color of the second texel with a second coefficient of the pair of complementary coefficients to produce a second weighted color; and

5   (c)   an accumulator which is operatively coupled to the first and second weighting modules and which is configured to sum the first and second weighted colors to produce the interpolated texel color.

19.   The texture mapper of Claim 18 further comprising a loading module which is

10   operatively coupled to a processor in which the first and second weighting modules weight the colors of the first and second texels, respectively, are performed and which causes the pair of complementary coefficients to be loaded into the processor in a single load operation.

20.   The texture mapper of Claim 18 wherein each color includes two or more

15   partitioned components;

further wherein the first weighting module comprises a first multiplication module which is configured to multiply each partitioned component of the color of the first texel with the first coefficient substantially simultaneously using a first partitioned multiplication operation; and

further wherein the second weighting module comprises a second multiplication module which is configured to multiply each partitioned component of the color of the

20   second texel with the second coefficient substantially simultaneously using a second partitioned multiplication operation.

25   21.   The texture mapper of Claim 18 wherein each color includes two or more partitioned components;

further wherein the accumulator comprises an addition module which is configured to add each partitioned component of the color of the first texel to a respective partitioned

component of the color of the second texel.

22.   The texture mapper of Claim 17 wherein the interpolated texel generator is further configured to calculate a weighted average of the color of a third of the texels and the color of a fourth of the texels according to the pair of complementary coefficients; and

further wherein the interpolated texel generator comprises a weighted average combination module which is configured to combine the weighted average of the colors of the third and fourth texels with the weighted average of the colors of the first and second texels to produce the interpolated texel color.

23.   The texture mapper of Claim 22 further comprising:

a coefficient load module which is operatively coupled to the first and second weighting modules and which is configured (i) to load the pair of complementary coefficients into a processor in which the interpolated texel generator calculates a weighted average color of the third and fourth texels and the weighted average color of the first and second texels and (ii) to preserve the state of the pair of complementary coefficients in the processor such that data representing the pair of complementary coefficients within the processor remain unchanged throughout calculation of the weighted average color of the first and second texels and the weighted average color of the third and fourth texels.

24.   The texture mapper of Claim 22 wherein the interpolated texel generator comprises:

(a)   a first weighting module which is configured to weight the color of the third texel with the first coefficient to produce a third weighted color;

(b)   a second weighting module which is configured to weight the color of the fourth texel with the second coefficient to produce a fourth weighted color; and

(c)   an accumulator which is operatively coupled to the first and second

weighting modules and which is configured to sum the third and fourth weighted colors to produce the weighted average of the colors of the third and fourth texels.

25.   The texture mapper of Claim 24 further comprising a loading module which is operatively coupled to a processor in which the first and second weighting modules weight the colors of the third and fourth texels, respectively, are performed and which causes the pair of complementary coefficients to be loaded into the processor in a single load operation.

26.   The texture mapper of Claim 22 further comprising:

a second table retrieval module which is operatively coupled to the texture coordinate parser and which is configured to retrieve from the table of predetermined complementary coefficients a second pair of complementary coefficients according to the fractional portion of a second of the coordinates of the pixel; and

wherein the interpolated texel generator is further configured to calculate a second weighted average of the third and fourth weighted average colors according to the second pair of complementary coefficients to produce a second interpolated texel color, which is different from the first-mentioned interpolated texel color and further includes:

a texel color composer module which is configured to generate from the first and second interpolated texel colors a composite interpolated texel color.

27.   The texture mapper of Claim 26 wherein the first-mentioned pair of complementary coefficients is the same as the second pair of complementary coefficients.

28.   The texture mapper of Claim 22 further comprising:

a second table of predetermined complementary coefficients, which is different from the first-mentioned table of predetermined complementary coefficients;

a second table retrieval module which is operatively coupled to the texture coordinate parser and which is configured to retrieve from the second table of

predetermined complementary coefficients a second pair of complementary coefficients according to the fractional portion of a second of the coordinates of the pixel; and

wherein the interpolated texel generator is further configured to calculate a second weighted average of the third and fourth weighted average colors according to the second pair of complementary coefficients to produce a second interpolated texel color, which is different from the first-mentioned interpolated texel color and further includes:

a texel color composer module which is configured to generate from the first and second interpolated texel colors a composite interpolated texel color.

29.   The texture mapper of Claim 26 wherein the interpolated texel generator comprises:

(a)   a first weighting module which is configured to weight the first interpolated texel color with a first coefficient of the second pair of complementary coefficients to produce a first weighted color;

(b)   a second weighting module which is configured to weight the second interpolated texel color with a second coefficient of the second pair of complementary coefficients to produce a second weighted color; and

(c)   an accumulator which is operatively coupled to the first and second weighting modules and which is configured to sum the first and second interpolated texel colors to produce the composite interpolated texel color.

30.   The texture mapper of Claim 17 further wherein the sum of the complementary coefficients of each pair of complementary coefficients of the table is equal to each other sum of the complementary coefficients of each other pair of the table and is a selected number.

31.   The texture mapper of Claim 30 further wherein the selected number is characterized such that each weighted average color calculated according to any of the pairs of complementary coefficients is scaled to be within a full range of possible colors.

32.   A texture mapper comprising:

a minification module which is configured to determining whole and fractional portions of a degree of minification of a texture image, which includes two or more texture sub-images corresponding to a particular respective degrees of minification of the texture image, corresponding to a pixel of a graphical object to which the texture image is mapped;

a table item retrieval module which is operatively coupled to the minification module and to the table and which is configured to retrieve from the table a pair of complementary coefficients from a table of predetermined complementary coefficients according to the fractional portion of the degree of minification of the pixel;

a texture sub-image specification module which is operatively coupled to the minification module and which is configured to select from the texture image first and second ones of the texture sub-images which correspond to the degree of minification of the pixel;

a texel retrieval module which is operatively coupled to the texture sub-image specification module and which is configured to provide from each of the first and second texture sub-images a respective texel, each of which has a color and each of which corresponds to the pixel; and

an interpolated texel generator which is operatively coupled to the table item retrieval module and the texel retrieval module and which is configured to calculate a weighted average of the color of the texel provided from the first texture sub-image and the color of the texel provided from the second texture sub-image according to the pair of complementary coefficients to produce an interpolated texel color.

33.   A computer system comprising:

a processor:

a memory which is operatively coupled to the processor and in which is stored a table of predetermined complementary coefficients;

a texture mapper which is coupled to the processor and to the table and which includes:

a texture coordinate parser configured to determine whole and fractional portions of one or more texture coordinates of a pixel of a graphical object, which is stored in the memory, in an address space of a texture image, which is stored in the memory;
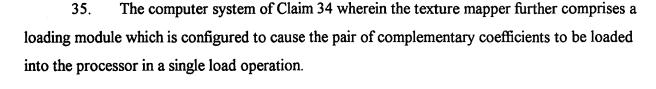
a table item retrieval module which is operatively coupled to the texture coordinate parser and to the table and which is configured to retrieve a pair of complementary coefficients from the table according to the fractional portion of the first texture coordinate of the pixel; and

an interpolated texel generator which is operatively coupled to the table item retrieval module and which is configured to calculate a weighted average of the color of a first of two or more texels of the texture image which correspond to the texture coordinates of the pixel and each of which has a color and the color of a second of the texels according to the pair of complementary coefficients to produce an interpolated texel color.

34.   The computer system of Claim 33 wherein the interpolated texel generator comprises:

. (a)   a first weighting module which is configured to weight the color of the first texel with a first coefficient of the pair of complementary coefficients to produce a first weighted color;

(b)   a second weighting module which is configured to weight the color of the second texel with a second coefficient of the pair of complementary coefficients to produce a second weighted color; and

(c)   an accumulator which is operatively coupled to the first and second weighting modules and which is configured to sum the first and second weighted colors to produce the interpolated texel color.

35.   The computer system of Claim 34 wherein the texture mapper further comprises a loading module which is configured to cause the pair of complementary coefficients to be loaded into the processor in a single load operation.

5   36.   The computer system of Claim 34 wherein each color includes two or more partitioned components;

further wherein the first weighting module comprises a first multiplication module which is configured to multiply each partitioned component of the color of the first texel with the first coefficient substantially simultaneously using a first partitioned multiplication

10   operation which is performed by the processor; and

further wherein the second weighting module comprises a second multiplication module which is configured to multiply each partitioned component of the color of the second texel with the second coefficient substantially simultaneously using a second partitioned multiplication operation which is performed by the processor.

15   37.   The computer system of Claim 34 wherein each color includes two or more partitioned components;

further wherein the accumulator comprises an addition module which is configured to add each partitioned component of the color of the first texel to a respective partitioned component of the color of the second texel using a partitioned addition multiplication

20   operation which is performed by the processor.

38.   The computer system of Claim 33 wherein the interpolated texel generator is further configured to calculate a weighted average of the color of a third one of the texels and the

25   color of a fourth one of the texels according to the pair of complementary coefficients; and

further wherein the interpolated texel generator comprises a weighted average combination module which is configured to combine the weighted average of the colors of the third and fourth texels with the weighted average of the colors of the first and second

texels to produce the interpolated texel color.

39.   The computer system of Claim 38 wherein the texture mapper further comprises:

a coefficient load module which is operatively coupled to the first and second

5   weighting modules and which is configured (i) to load the pair of complementary

coefficients into the processor and (ii) to preserve the state of the pair of complementary

coefficients in the processor such that data representing the pair of complementary

coefficients within the processor remain unchanged throughout calculation of the weighted

average color of the first and second texels and the weighted average color of the third

10   and fourth texels.

40.   The computer system of Claim 38 wherein the interpolated texel generator

comprises:

(a)   a first weighting module which is configured to weight the color of the

third texel with the first coefficient to produce a third weighted color;

(b)   a second weighting module which is configured to weight the color of the

fourth texel with the second coefficient to produce a fourth weighted color; and

(c)   an accumulator which is operatively coupled to the first and second

weighting modules and which is configured to sum the third and fourth weighted colors to

20   produce the weighted average of the colors of the third and fourth texels.

41.   The computer system of Claim 40 wherein the texture mapper further comprises a

- loading module which is operatively coupled to the processor and which causes the pair of

complementary coefficients to be loaded into the processor in a single load operation.

25

42.   The computer system of Claim 38 wherein the texture mapper further comprises:

a second table retrieval module which is operatively coupled to the texture

coordinate parser and which is configured to retrieve from the table a second pair of

complementary coefficients according to the fractional portion of a second of the coordinates of the pixel; and

wherein the interpolated texel generator is further configured to calculate a second weighted average of the third and fourth weighted average colors according to the second

5   pair of complementary coefficients to produce a second interpolated texel color, which is different from the first-mentioned interpolated texel color and further includes:

a texel color composer module which is configured to generate from the first and second interpolated texel colors a composite interpolated texel color.

10   43.   The computer system of Claim 42 wherein the first-mentioned pair of complementary coefficients is the same as the second pair of complementary coefficients.

44.   The computer system of Claim 38 wherein the memory further includes:

a second table of predetermined complementary coefficients, which is different from the first-mentioned table of predetermined complementary coefficients;

15   further wherein the texture mapper further comprises a second table retrieval module which is operatively coupled to the texture coordinate parser and which is configured to retrieve from the second table a second pair of complementary coefficients according to the fractional portion of a second of the coordinates of the pixel; and

20   further wherein the interpolated texel generator is further configured to calculate a second weighted average of the third and fourth weighted average colors according to the second pair of complementary coefficients to produce a second interpolated texel color, which is different from the first-mentioned interpolated texel color and further includes:

a texel color composer module which is configured to generate from the

25   first and second interpolated texel colors a composite interpolated texel color.

45.   The computer system of Claim 42 wherein the interpolated texel generator comprises:

(a)   a first weighting module which is configured to weight the first interpolated texel color with a first coefficient of the second pair of complementary coefficients to produce a first weighted color;

(b)   a second weighting module which is configured to weight the second interpolated texel color with a second coefficient of the second pair of complementary coefficients to produce a second weighted color; and

(c)   an accumulator which is operatively coupled to the first and second weighting modules and which is configured to sum the first and second interpolated texel colors to produce the composite interpolated texel color.

46.   The computer system of Claim 33 wherein the sum of the complementary coefficients of each pair of complementary coefficients of the table is substantially equal to each other sum of the complementary coefficients of each other pair of the table and is substantially equal to a selected number.

47.   The computer system of Claim 46 further wherein the selected number is characterized such that each weighted average color calculated according to any of the pairs of complementary coefficients is scaled to be within a full range of possible colors.

48.   A computer system comprising:

a processor;

a memory which is operatively coupled to the processor and in which is stored a table of predetermined complementary coefficients; and

a texture mapper which is operatively coupled to the processor and to the table and which includes:

a minification module which is configured to determining whole and fractional portions of a degree of minification of a texture image, which includes two or more texture sub-images corresponding to a particular respective degrees

of minification of the texture image, corresponding to a pixel of a graphical object
to which the texture image is mapped;

a table item retrieval module which is operatively coupled to the
minification module and to the table and which is configured to retrieve from the
table a pair of complementary coefficients from a table of predetermined
complementary coefficients according to the fractional portion of the degree of
minification of the pixel;

a texture sub-image specification module which is operatively coupled to
the minification module and which is configured to select from the texture image
first and second ones of the texture sub-images which correspond to the degree of
minification of the pixel;

a texel retrieval module which is operatively coupled to the texture sub-
image specification module and which is configured to provide from each of the
first and second texture sub-images a respective texel, each of which has a color
and each of which corresponds to the pixel; and

an interpolated texel generator which is operatively coupled to the table
item retrieval module and the texel retrieval module and which is configured to
calculate a weighted average of the color of the texel provided from the first
texture sub-image and the color of the texel provided from the second texture sub-
image according to the pair of complementary coefficients to produce an
interpolated texel color.

49.   A computer program product comprising a computer usable medium having
computable readable code embodied therein for causing for mapping a texture image to a
graphical object, wherein the computer readable code includes:

a texture coordinate parser configured to determine whole and fractional portions
of one or more texture coordinates of a pixel of the graphical object in an address space of
the texture image;

a table of predetermined complementary coefficients;

a table item retrieval module which is operatively coupled to the texture coordinate parser and to the table of predetermined complementary coefficients and which is configured to retrieve a pair of complementary coefficients from the table of

5   predetermined complementary coefficients according to the fractional portion of the first texture coordinate of the pixel; and

an interpolated texel generator which is operatively coupled to the table item retrieval module and which is configured to calculate a weighted average of the color of a first of two or more texels of the texture image which correspond to the texture

10   coordinates of the pixel and each of which has a color and the color of a second of the texels according to the pair of complementary coefficients to produce an interpolated texel color.

50.   The computer program product of Claim 49 wherein the interpolated texel

15 generator comprises:

(a)   a first weighting module which is configured to weight the color of the first texel with a first coefficient of the pair of complementary coefficients to produce a first weighted color;

(b)   a second weighting module which is configured to weight the color of the

20 second texel with a second coefficient of the pair of complementary coefficients to produce a second weighted color; and

(c)   an accumulator which is operatively coupled to the first and second weighting modules and which is configured to sum the first and second weighted colors to produce the interpolated texel color.

25

51.   The computer program product of Claim 50 wherein the computer readable code further includes a loading module which is operatively coupled to a processor in which the first and second weighting modules weight the colors of the first and second texels, respectively, are

performed and which causes the pair of complementary coefficients to be loaded into the processor in a single load operation.

52.   The computer program product of Claim 50 wherein each color includes two or
5   more partitioned components;

further wherein the first weighting module comprises a first multiplication module which is configured to multiply each partitioned component of the color of the first texel with the first coefficient substantially simultaneously using a first partitioned multiplication operation; and

10   further wherein the second weighting module comprises a second multiplication module which is configured to multiply each partitioned component of the color of the second texel with the second coefficient substantially simultaneously using a second partitioned multiplication operation.

53.   The computer program product of Claim 50 wherein each color includes two or
more partitioned components;

further wherein the accumulator comprises an addition module which is configured to add each partitioned component of the color of the first texel to a respective partitioned component of the color of the second texel.

54.   The computer program product of Claim 49 wherein the interpolated texel generator is further configured to calculate a weighted average of the color of a third of the texels and the color of a fourth of the texels according to the pair of complementary coefficients; and

further wherein the interpolated texel generator comprises a weighted average
25   combination module which is configured to combine the weighted average of the colors of the third and fourth texels with the weighted average of the colors of the first and second texels to produce the interpolated texel color.

55.   The computer program product of Claim 54 wherein the computer readable code further includes:

a coefficient load module which is operatively coupled to the first and second weighting modules and which is configured (i) to load the pair of complementary coefficients into a processor in which the interpolated texel generator calculates a weighted average color of the third and fourth texels and the weighted average color of the first and second texels and (ii) to preserve the state of the pair of complementary coefficients in the processor such that data representing the pair of complementary coefficients within the processor remain unchanged throughout calculation of the weighted average color of the first and second texels and the weighted average color of the third and fourth texels.

56.   The computer program product of Claim 54 wherein the interpolated texel generator comprises:

(a)   a first weighting module which is configured to weight the color of the third texel with the first coefficient to produce a third weighted color;

(b)   a second weighting module which is configured to weight the color of the fourth texel with the second coefficient to produce a fourth weighted color; and

(c)   an accumulator which is operatively coupled to the first and second weighting modules and which is configured to sum the third and fourth weighted colors to produce the weighted average of the colors of the third and fourth texels.

57.   The computer program product of Claim 56 wherein the computer readable code further includes a loading module which is operatively coupled to a processor in which the first and second weighting modules weight the colors of the third and fourth texels, respectively, are performed and which causes the pair of complementary coefficients to be loaded into the processor in a single load operation.

58.   The computer program product of Claim 54 wherein the computer readable code further includes:

        a second table retrieval module which is operatively coupled to the texture coordinate parser and which is configured to retrieve from the table of predetermined complementary coefficients a second pair of complementary coefficients according to the fractional portion of a second of the coordinates of the pixel; and

        wherein the interpolated texel generator is further configured to calculate a second weighted average of the third and fourth weighted average colors according to the second pair of complementary coefficients to produce a second interpolated texel color, which is different from the first-mentioned interpolated texel color and further includes:

            a texel color composer module which is configured to generate from the first and second interpolated texel colors a composite interpolated texel color.

59.   The computer program product of Claim 58 wherein the first-mentioned pair of complementary coefficients is the same as the second pair of complementary coefficients.

60.   The computer program product of Claim 54 further comprising:

        a second table of predetermined complementary coefficients, which is different from the first-mentioned table of predetermined complementary coefficients;

        a second table retrieval module which is operatively coupled to the texture coordinate parser and which is configured to retrieve from the second table of predetermined complementary coefficients a second pair of complementary coefficients according to the fractional portion of a second of the coordinates of the pixel; and

        wherein the interpolated texel generator is further configured to calculate a second weighted average of the third and fourth weighted average colors according to the second pair of complementary coefficients to produce a second interpolated texel color, which is different from the first-mentioned interpolated texel color and further includes:

            a texel color composer module which is configured to generate from the

first and second interpolated texel colors a composite interpolated texel color.

61.   The computer program product of Claim 60 wherein the interpolated texel generator comprises:

5   (a)   a first weighting module which is configured to weight the first interpolated texel color with a first coefficient of the second pair of complementary coefficients to produce a first weighted color;

          (b)   a second weighting module which is configured to weight the second interpolated texel color with a second coefficient of the second pair of complementary coefficients to produce a second weighted color; and

10   (c)   an accumulator which is operatively coupled to the first and second weighting modules and which is configured to sum the first and second interpolated texel colors to produce the composite interpolated texel color.

62.   The computer program product of Claim 49 further wherein the sum of the complementary coefficients of each pair of complementary coefficients of the table is equal to each other sum of the complementary coefficients of each other pair of the table and is a selected number.

63.   The computer program product of Claim 62 further wherein the selected number is characterized such that each weighted average color calculated according to any of the pairs of complementary coefficients is scaled to be within a full range of possible colors.

64.   A computer program product comprising a computer usable medium having
25   computable readable code embodied therein for causing for mapping a texture image to a graphical object, wherein the computer readable code includes:

          a minification module which is configured to determining whole and fractional portions of a degree of minification of a texture image, which includes two or more

texture sub-images corresponding to a particular respective degrees of minification of the texture image, corresponding to a pixel of a graphical object to which the texture image is mapped;

5   a table item retrieval module which is operatively coupled to the minification module and to the table and which is configured to retrieve from the table a pair of complementary coefficients from a table of predetermined complementary coefficients according to the fractional portion of the degree of minification of the pixel;

          a texture sub-image specification module which is operatively coupled to the minification module and which is configured to select from the texture image first and 10   second ones of the texture sub-images which correspond to the degree of minification of the pixel;

          a texel retrieval module which is operatively coupled to the texture sub-image specification module and which is configured to provide from each of the first and second texture sub-images a respective texel, each of which has a color and each of which 15   corresponds to the pixel; and

          an interpolated texel generator which is operatively coupled to the table item retrieval module and the texel retrieval module and which is configured to calculate a weighted average of the color of the texel provided from the first texture sub-image and the color of the texel provided from the second texture sub-image according to the pair of 20   complementary coefficients to produce an interpolated texel color.